Distributed ParselTongue

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Distributed ParselTongue



Deliverable 6.1.2: Release of distributed ParselTongue

Piece of software (not a report)

Goal: A ParselTongue that makes it easy to do data processing in a more parallel way.

Platform: classic AIPS (primary), CASA (secondary), Python

Manpower: Mark Kettenis (JIVE), Stephen Bourke (JIVE)



ParselTongue



ParselTongue is a Python (scripting) interface to classic AIPS.

- Run AIPS tasks
- Access AIPS data
- Now has low-level parallelisation primitives
- Large userbase among users of instruments that use AIPS.

Especially among the "new generation".



AIPS Light



A way to use classic AIPS without doing a full install

- Developed by Stephen Bourke
- Makes AIPS usable in HPC environment
- Implemented in Python



Parallelisation



- Integrate "AIPS Light" into ParselTongue
 - 2 man-months; month 8?
- Build high-level parallelization functionality on top of existing low-level constructs (desperately needs project)
 - 10 man-months; month 18? Involve Manchester here?
- Investigate more efficient ways of data distribution. Synchronize tables only?
 4 man-months; month 16?
- Implement more efficient ways of data distribution. Synchronize tables only?
 - 4 man-months; month 24?



Interoperability



Integrate results from deliverable 6.1.1: Portable Algorithms into ParselTongue.

- Make ParselTongue coexist with casapy/pyrap.
- Implement conversion routines from/to CASA calibration tables